# Fall 2018 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

# Sacramento River Basin

ST0012	Overall LMA	Total LMA						
Sacramento Maintenance Yard Willow	Rating	Miles						
Slough Bypass	Α	12.51						
Dated Have	Maintenance Deficiency			Enforc	ement	Design & System Obsolescence		
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
Earthen Levee		I						
Encroachments					1.32			
Animal Control	0.01		0.01	0.08%				
Slope Stability	0.01		0.01	0.08%				
Erosion / Bank Caving	0.07		0.07	0.56%				
Supplemental DWD LICID Field Study					0.02			
DWR UCIP Field Study					0.03			
DWR UCIP LMA Responsibility	0.00	0.00	0.00	0.700/	4.05	0.00	0.00	0.00
LMA Totals:	0.09	0.00	0.09	0.72%	1.35	0.00	0.00	0.00
Unit No. 01 Willow Slough Bypass or North Levee LB	Overall Unit Rating	Total Unit Miles						
ST0012	A	5.05						
	Maintenance Deficiency			Enforcement		Design & System Obsolescence		
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
Earthen Levee								
Encroachments					1.21			
Erosion / Bank Caving	0.07		0.07	1.39%				
Supplemental		I					1	
DWR UCIP Field Study					0.02			
Unit Totals:	0.07	0.00	0.07	1.39%	1.23	0.00	0.00	0.00
Unit No. 02 Willow Slough Bypass or South Levee RB	Overall Unit Rating	Total Unit Miles						
ST0012	Α	7.46						
		Maintena	nce Deficiency		Enforcement		Design 8 Obsole	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
Earthen Levee			<u> </u>	<u> </u>				
Encroachments					0.11			
Animal Control	0.01		0.01	0.13%				
Slope Stability	0.01		0.01	0.13%				
Supplemental								
DWR UCIP Field Study					0.01			
DWR UCIP LMA Responsibility								
Unit Totals:	0.02	0.00	0.02	0.27%	0.12	0.00	0.00	0.00

Winter \*\*

# Flood Control Project Maintenance Levee Inspections

# **LMA District Cover Sheet**

Fall 2018 Levee Inspection Results

# Sacramento Maintenance Yard Willow Slough Bypass

Summer \*\*

Fall

	(March - May)	(June - August)	(September - November)	(December - February)						
† Overall LMA Rating (Fall Only)										
	** Non-receipt of Summ Reports may effect or									
† SPRING INSPECTIONS: Overall maintenance deficiencies are rated	ratings are not determ I using the same crite			ual maintenance						
	FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.									
Comments										

# **Unit Cover Sheet**

# Fall 2018 Levee Inspection Results

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			Α	
Date of Inspection	4/12/2018 - 4/12/2018		9/5/2018 - 9/5/2018	
DWR Inspector	Zach Jojola		Zach Jojola	
Accompanied By	James McCabe		James McCabe	

### Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

# http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start		Rating **	Α	Issue No.		6		
LM End		Issue Type +	Ma	Location * N/A				
Category	GPS La	atitud	le/Longitude					
Calegory				Start		End		
Item		s & Maintena	nce		٥		0	
пеш	Manuals				٥		0	
DWR ID DWR_ST0012_01_s _ 2013_6								
		Comn	nent Cod	de				
		Inspecto	or Comm	nent				
Sacramen	to Mainten	ance Yard ha	s copies	of their O&	Mn	nanuals.		

No Photos

LM Start		Rating **	Α	Issue No.		7	
LM End		Issue Type +	Ма	Location *		N/A	
Category	Earthen Levee		GPS Latitude/Longi		le/Longitude		
Calegory				Start		End	
Item		y Supplies &			٥		0
itein	Equipmen	nt			0		0
DWR ID	DWR_ST0	012_01_s _ 201	3_7				
		Comn	nent Cod	de			

No Photos

Inspector Comment

Sacramento Maintenance Yard has a stockpile of flood response material.

LM Start		Rating **	Α	Issue No.		8				
LM End		Issue Type +	Ма	Location *		N/A				
Category	GPS La	atitud	le/Longitude							
Calegory				Start		End				
Item	Flood Pre	paredness &	Training		0		0			
item					0		0			
DWR ID	DWR_ST00	012_01_s _ 201	3_8							
		Comn	nent Cod	le						
	Inspector Comment									
		ance Yard ha	s a writte	Sacramento Maintenance Yard has a written flood response plan and flood fight training.						

No Photos

\* Location LS : Land Side

WS: Water Side

N/A: Not Applicable

A : Acceptable M : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence

En: Enforcement

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.00	Rating **	М	Issue No.		17		
LM End	0.06	Issue Type +	En	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Encroachi	ments		38.5907	72°	38.590758°		
item				-121.665343 °		-121.666370°		
DWR ID	DWR_ST00	012_01_s _ 201	7_17					
		Comn	nent Cod	de				
FE : Fence	)							
		Inspecto	or Comm	nent				
Chain link	fence.							



View of fence on the landside shoulder. Spring 2018.

LM Start	0.02	Rating **	A/W	Issue No.		18	
LM End	0.02	Issue Type +	Ма	Location *			
Supplemental GPS Latitude/I				le/Longitude			
Category				Start		End	
Item	DWR UCI	P LMA Respo	nsibility	38.59076	6°	38.590766°	
пеш				-121.66556	0 °	-121.665560°	
DWR ID	17834						
	Comment Code						

# Inspector Comment

FS\_ID:44903 DS\_ID:17834 EP\_NO: 10130

Repair Type: No Action Needed

Crossing Status: Found

UCIP Comments: 05/02/2017 CVFPB Letter sent April 12, 2012 regarding Permit #10130 - Internal Inspections of Pipes Crossing State Plan of Flood Control Levee. Permit No. 10130 previously referenced in UCIP record was removed--permit does not reference 36-inch pipe. (O. Magana - DWR UCIP)

04/12/2017 Mud/debris on WS removed by JK, RF. (C. Lund - DWR

Sacramento Yard)

05/05/2015 Removed debris from the outlet. (C. Lund - DWR Sacramento Yard)

09/19/2012 Minor debris blocking flap gate. Debris/log needs to be removed from the outlet. (P. Amatya - DWR UCIP)

FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. [Additional Reference(s): USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 271+54)]

FS Date: 5/5/2015 8:02:11 AM

# Photo 1 of 3 : UCIP\_FA\_2018\_44903\_22882.jpg



Landside view- beyond grass area see drainage inlet

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.02	Rating **	A/W	Issue No.		18 (cont)
LM End	0.02	Issue Type +	Ма	Location *		
Category				GPS Latitude/Longitude		
Category				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.59076	°	38.590766 °
пеш				-121.66556	°	-121.665560 °
DWR ID	17834					

### Inspector Comment

Comment Code

FS\_ID:44903 DS\_ID:17834 EP\_NO: 10130

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 05/02/2017 CVFPB Letter sent April 12, 2012 regarding Permit #10130 - Internal Inspections of Pipes Crossing State Plan of Flood Control Levee. Permit No. 10130 previously referenced in UCIP record was removed--permit does not reference 36-inch pipe. (O. Magana - DWR UCIP)

04/12/2017 Mud/debris on WS removed by JK, RF. (C. Lund - DWR

Sacramento Yard)

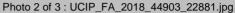
05/05/2015 Removed debris from the outlet. (C. Lund - DWR Sacramento Yard)

09/19/2012 Minor debris blocking flap gate. Debris/log needs to be removed from the outlet. (P. Amatya - DWR UCIP) FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe

FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. [Additional Reference(s): USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 271+54)]

FS Date: 5/5/2015 8:02:11 AM

LM Start	0.02	Rating **	A/W	Issue No.	18 (cont)
LM End	0.02	Issue Type +	Ma	Location *	





Waterside view- general view

Photo 3 of 3: UCIP\_FA\_2018\_44903\_22880.jpg



Waterside overview. Notice waterway.

\* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating
A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiency
C: Corrected Ob: Design & System Obsolescence
U: Unacceptable A/W: Acceptable but Monitor & Maintain

\*\* Rating
A: Acceptable M: N: Not Inspected/Rated M: Ma: Maintenance Deficiency
Ob: Design & System Obsolescence
En: Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.03	Rating **	A/W	Issue No.		19
LM End	0.03	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	38.59077	٥	38.590771 °
пеш				-121.665860	°	-121.665860 °
DWR ID	17613					

# Inspector Comment

Comment Code

FS ID:44904 DS\_ID:17613 EP\_NO: 10309

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/19/2012 Abandoned in place. CMP filled with

concrete. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 30-inch steel drainage pipe through the levee, 16.5 feet below the crown. Flap gate is located on the waterside (WS) end. Manhole and grate are located on the landside (LS) toe. (30-inch pipe [HLM 0.01] authorized under Automatic Board Order (ABO) issued as Permit No. 10309, 1974 - City of Davis). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 270+70)]

FS Date: 5/5/2015 8:02:49 AM

LM Start	0.03	Rating **	A/W	Issue No.	19 (cont)
LM End	0.03	Issue Type +	Ma	Location *	



Waterside view- CMP grouted with concrete.



Waterside view- CMP grouted with concrete (closer view)

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.03	Rating **	A/W	Issue No.		19 (cont)	
LM End	0.03	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS Lat	tuc	le/Longitude	
Calegory				Start		End	
Item	DWR UCI	IP LMA Respo	onsibility	38.59077	1°	38.590771	0
пеш				-121.66586	o°	-121.665860	0
DWR ID	17613						

# Inspector Comment

Comment Code

FS\_ID:44904 DS\_ID:17613 EP\_NO: 10309

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/19/2012 Abandoned in place. CMP filled with

concrete. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 30-inch steel drainage pipe through the levee, 16.5 feet below the crown. Flap gate is located on the waterside (WS) end. Manhole and grate are located on the landside (LS) toe. (30-inch pipe [HLM 0.01] authorized under Automatic Board Order (ABO) issued as Permit No. 10309, 1974 - City of Davis). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 270+70)]

FS Date: 5/5/2015 8:02:49 AM



Landside overview- pumping plant not related with this crossing.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.79	Rating **	A/W	Issue No.	20		
LM End	0.79	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start End			
Item	DWR UC	IP LMA Respo	nsibility	38.5904	80°	38.590480°	
пеш				-121.6797	90°	-121.679790°	
DWR ID	DWR ID 17608						
Comment Code							

# Inspector Comment

FS\_ID:44907 DS\_ID:17608 EP\_NO: 10313

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 LS - dump has it plugged, WS - ditch need to be established debris higher than water, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

09/19/2012 Pipe sits on concrete saddle on WS. (DWR UCIP - P.

Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 0.79] authorized under Automatic Board Order (ABO) issued as Permit No. 10313, 1974 - Lear). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2. 4 (Station 232+43)]

FS Date: 5/5/2015 8:06:14 AM

LM Start	0.79	Rating **	A/W	Issue No.	20 (cont)
LM End	0.79	Issue Type +	Ma	Location *	

Photo 1 of 3: UCIP\_FA\_2018\_44907\_22894.jpg



Landside view- pipe and headwall

Photo 2 of 3: UCIP\_FA\_2018\_44907\_22893.jpg



Landside view- pipe and headwall closer view

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.79	Rating **	A/W	Issue No.	20 (cont)		
LM End	0.79	Issue Type +	Ма	Location *			
Category	ental		GPS Lat	ituc	le/Longitude		
Calegory				Start End			
Item	DWR UCI	P LMA Respo	nsibility	38.59048	o°	38.590480°	
пеш				-121.67979	o°	-121.679790°	
DWR ID	ID 17608						
	Comment Code						

# Inspector Comment

FS\_ID:44907 DS\_ID:17608 EP\_NO: 10313

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 LS - dump has it plugged, WS - ditch need to be established debris higher than water, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

09/19/2012 Pipe sits on concrete saddle on WS. (DWR UCIP - P.

Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 0.79] authorized under Automatic Board Order (ABO) issued as Permit No. 10313, 1974 - Lear). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2, 4 (Station 232+43)]

FS Date: 5/5/2015 8:06:14 AM



Waterside view

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	1.52	Rating **	A/W	Issue No.		21
LM End	1.52	Issue Type +	Ма	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory	Category					End
Item	DWR UCIP LMA Responsibility				40 °	38.590340°
item				-121.6933	60°	-121.693360 °
DWR ID	17623					·

### Inspector Comment

Comment Code

FS\_ID:44929 DS\_ID:17623 EP\_NO: 10310

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 20-inch steel drainage pipe sleeved though 30-inch corrugated metal pipe through the levee, 12.5 feet below the crown. 24-inch flap gate is located on the waterside (WS) end. (30-inch pipe [HLM 1.53] authorized under Automatic Board Order (ABO) issued as Permit No. 10310, 1974 - Hunt-Wesson Foods, Inc.) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 192+88)]

FS Date: 5/5/2015 8:20:02 AM

LM Start	1.52	Rating **	A/W	Issue No.	21 (cont)
LM End	1.52	Issue Type +	Ma	Location *	



Waterside view-pipe and flab gate

# Photo 2 of 3: UCIP\_FA\_2018\_44929\_22928.jpg



Waterside view- 20-inch pipe sleeved into 30-inch pipe

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	1.52	Rating **	A/W	Issue No.		21 (cont)	
LM End	1.52	Issue Type +	Ma	Location *			
Category				GPS Latitude/Longitude			
Calegory	Category					End	
Item	DWR UCIP LMA Responsibility				o°	38.590340	0
пеш				-121.69336	o°	-121.693360	0
DWR ID	17623						

### Inspector Comment

Comment Code

FS\_ID:44929 DS\_ID:17623 EP\_NO: 10310

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 20-inch steel drainage pipe sleeved though 30-inch corrugated metal pipe through the levee, 12.5 feet below the crown. 24-inch flap gate is located on the waterside (WS) end. (30-inch pipe [HLM 1.53] authorized under Automatic Board Order (ABO) issued as Permit No. 10310, 1974 - Hunt-Wesson Foods, Inc.) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 192+88)]

FS Date: 5/5/2015 8:20:02 AM



Waterside overview

LM Start	1.53	Rating **	M	Issue No.		14		
LM End	2.20	Issue Type +	En	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Item	Encroach		38.5903	34°	38.590466 °			
item				-121.6936	18°	-121.705849°		
DWR ID DWR_ST0012_01_f _ 2016_14								
		Comn	nent Cod	de				
FE : Fence	9							
Inspector Comment								
Barbed wire fence.								

Photo 1 of 1 : FA_2018_ST0012_295_14_20180904_00003.jp	g
	41.

View of fence encroaching 10-foot easement on landward side of the levee. Fall 2016.

\* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating
A: Acceptable
M: Minimally Acceptable
U: Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.01	Rating **	A/W	Issue No.		22
LM End	2.01	Issue Type +	Ма	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory	Category					End
Item	DWR UCI	38.59039	90°	38.590390°		
item				-121.70247	70°	-121.702470 °
DWR ID	17619					·

# Inspector Comment

Comment Code

FS\_ID:44937 DS\_ID:17619 EP\_NO: 10307

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/26/2017 LS - removed debris and needs to be sprayed, work completed by JK, MH. (DWR Sacramento Yard - C. Lund) 04/12/2017 LS - good/clear, WS - little debris (handwork-cleared), inspected by JK, RF. (DWR Sacramento Yard - C. Lund) 05/28/2013 flap gate cleaned and standpipe repaired. (DWR Sacramento Yard - C. Lund)

09/19/2012 The 48-inch concrete manhole damaged - top ring knocked off in waterside. Debris found in waterside pipe. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch drainage pipe of unknown material through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete headwall is located on the WS and landside (LS) ends. Slide gate is located inside a 48-inch manhole located on the WS slope. (24-inch pipe [HLM 2.04] authorized under Automatic Board Order (ABO) issued as Permit No. 10307, 1974 - Beckman). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 165+69)]

FS Date: 5/5/2015 8:25:25 AM

LM Start	2.01	Rating **	A/W	Issue No.	22 (cont)
LM End	2.01	Issue Type +	Ma	Location *	



Landside view- concrete pipe and headwall.

Photo 2 of 3: UCIP\_FA\_2018\_44937\_22949.jpg



Landside view- debris

\* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

\*\* Rating

A : Acceptable N : Not Inspected/Rated M: Maintenance Deficiency Ob: Design & System Obsolescence U: Unacceptable U: Unacceptable but Monitor & Maintain

\*\* Rating

A : Not Applicable M: Not Inspected/Rated M: Maintenance Deficiency Ob: Design & System Obsolescence En: Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.01	Rating **	A/W	Issue No.		22 (cont)		
LM End	2.01	Issue Type +	Ма	Location *				
Catagony	Category Supplemental				GPS Latitude/Longitude			
Calegory						End		
Item	DWR UCIP LMA Responsibility			38.59039	0°	38.590390°		
пеш			-121.70247	o°	-121.702470 °			
DWR ID	17619					·		

# Inspector Comment

Comment Code

FS ID:44937 DS\_ID:17619 EP\_NO: 10307

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/26/2017 LS - removed debris and needs to be sprayed, work completed by JK, MH. (DWR Sacramento Yard - C. Lund) 04/12/2017 LS - good/clear, WS - little debris (handwork-cleared) , inspected by JK, RF. (DWR Sacramento Yard - C. Lund) 05/28/2013 flap gate cleaned and standpipe repaired. (DWR Sacramento Yard - C. Lund)

09/19/2012 The 48-inch concrete manhole damaged - top ring knocked off in waterside. Debris found in waterside pipe. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch drainage pipe of unknown material through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete headwall is located on the WS and landside (LS) ends. Slide gate is located inside a 48-inch manhole located on the WS slope. (24-inch pipe [HLM 2.04] authorized under Automatic Board Order (ABO) issued as Permit No. 10307, 1974 Beckman). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 165+69)] FS Date: 5/5/2015 8:25:25 AM



Waterside view- concrete manhole.

N : Not Inspected/Rated C : Corrected

Ma : Maintenance Deficiency Ob : Design & System Obsolescence

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.92	Rating **	A/W	Issue No.		23
LM End	2.92	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory	Category					End
Item	DWR UCI	DWR UCIP LMA Responsibility			o°	38.590580 °
пеш				-121.71922	o°	-121.719220°
DWR ID	17620					

### Inspector Comment

Comment Code

FS\_ID:44942 DS\_ID:17620 EP\_NO: 10311

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/28/2013 Some small vegetation removal is needed on landside of the levee. (DWR Sacramento - C. Lund)

09/19/2012 Vegetation removal on landside of the levee. (DWR UCIP -

P. Amatya)

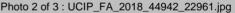
FIELD\_ŚTRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 2.95] authorized under Automatic Board Order (ABO) issued as Permit No. 10311 - Ittner and Harlan). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 118+00)]

FS Date: 5/5/2015 8:30:47 AM

LM Start	2.92	Rating **	A/W	Issue No.	23 (cont)
LM End	2.92	Issue Type +	Ma	Location *	



Landside view- inlet structure





Landside view- concrete headwall

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.92	Rating **	A/W	Issue No.		23 (cont)
LM End	2.92	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Lat	itud	e/Longitude
Calegory						End
Item	DWR UCI	IP LMA Respo	onsibility	38.59058	o°	38.590580°
пеш				-121.71922	o°	-121.719220°
DWR ID	17620					

### Inspector Comment

Comment Code

FS\_ID:44942 DS\_ID:17620 EP\_NO: 10311

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/28/2013 Some small vegetation removal is needed on landside of the levee. (DWR Sacramento - C. Lund)

09/19/2012 Vegetation removal on landside of the levee. (DWR UCIP -

P. Amatya)

FIELD\_ŚTRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 2.95] authorized under Automatic Board Order (ABO) issued as Permit No. 10311 - Ittner and Harlan). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 118+00)]

FS Date: 5/5/2015 8:30:47 AM



Landside view- vegetation around inlet.

LM Start	2.93	Rating **	М	Issue No.		10		
LM End	3.00	Issue Type +	Ма	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
Category	Category			Start		End		
Item	Erosion /	Bank Caving		38.5905	72°	38.590653°		
пеш				-121.7193	49°	-121.720714°		
DWR ID	DWR ID DWR_ST0012_01_s _ 2015_10							
	Comment Code							

E1: Note and monitor erosion site.

# Inspector Comment

Appears to be runoff on the landside slope. Possibly an abandoned pipeline that is caving in.

# Photo 1 of 3: FA\_2018\_ST0012\_295\_10\_20180905\_00005.jpg



Updated view of the erosion on the landside slope. Fall 2018.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiency Ob: Design & System Obsolescence

En: Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.93	Rating **	М	Issue No.		10 (cont)		
LM End	3.00	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory						End		
Item Erosion / Bank Caving			38.590572°		38.590653°			
пеш				-121.719349°		19° -121.720714°		
DWR ID	DWR_ST0	012_01_s _ 201	5_10					
		Comn	nent Cod	de				
E1 : Note a	and monito	or erosion site						
Inspector Comment								
Appears to	be runoff	on the landsid	de slope	Possibly a	n ab	andoned		

 LM Start
 2.93
 Rating \*\*
 M
 Issue No.
 10 (cont)

 LM End
 3.00
 Issue Type +
 Ma
 Location \*
 LS

pipeline that is caving in.



Additional view of the erosion on the landside slope. Fall 2018.

# Photo 3 of 3: FA\_2018\_ST0012\_295\_10\_20180904\_00002.jpg



View of the erosion on the landward side of the levee looking upstream. Fall 2015.

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.05	Rating **	A/W	Issue No.		24			
LM End	3.05	Issue Type +	Ма	Location *					
Category				GPS Latitude/Longitude					
Calegory	gory			Start		End			
Item	DWR UCI	P LMA Respo	nsibility	38.5906	12°	38.590612°			
пеш				-121.72168	39°	-121.721689°			
DWR ID	17621								
	Comment Code								

# Inspector Comment

FS\_ID:44943 DS\_ID:17621 EP\_NO: 10312

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

09/19/2012 Depressions on waterside slope of the levee. (DWR UCIP -

P. Amatya)

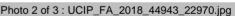
FIELD\_ŚTRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 3.08] authorized under Automatic Board Order (ABO) issued as Permit No. 10312, 1974 - Kelly). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 110+97)]

FS Date: 5/5/2015 8:31:05 AM

LM Start	3.05	Rating **	A/W	Issue No.	24 (cont)
LM End	3.05	Issue Type +	Ma	Location *	



Waterside view- pipe and flap gate.





Waterside view- pipe and flap gate (close view).

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiency

Ob : Design & System Obsolescence
En : Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.05	Rating **	A/W	Issue No.		24 (cont)	
LM End	3.05	Issue Type +	Ма	Location *			
Category	Suppleme	ental	tal GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UCI	P LMA Respo	nsibility	38.5906	12°	38.590612	0
пеш				-121.7216	89°	-121.721689	0
DWR ID	17621						
Comment Code							

# Inspector Comment

FS\_ID:44943 DS\_ID:17621

EP\_NO: 10312 Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

09/19/2012 Depressions on waterside slope of the levee. (DWR UCIP -

P. Amatya)

FIELD\_ŚTRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 3.08] authorized under Automatic Board Order (ABO) issued as Permit No. 10312, 1974 - Kelly). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 110+97)]

FS Date: 5/5/2015 8:31:05 AM



Landside view- pipe and concrete headwall.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.55	Rating **	A/W	Issue No.		25
LM End	3.55	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.59068	o°	38.590680°
пеш				-121.73072	o°	-121.730720°
DWR ID	17622					

### Inspector Comment

Comment Code

FS\_ID:44947 DS\_ID:17622 EP\_NO: 10316

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/28/2013 Debris on waterside flap gate has been removed. (DWR Sacramento Yard - C. Lund)

09/19/2012 Debris on waterside flap gate. Needs debris removal from

the pipe. (DWR UCIP - P. Amatya)
FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe
through the levee, 11 feet below the crown. Flap gate is located on the
waterside (WS) end. Concrete pad is located on the WS. (24-inch pipe
[HLM 3.57] authorized under Automatic Board Order (ABO) issued as
Permit No. 10316, 1974 - Stafford). [Additional Reference(s): DWR
Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow
Slough Channel Relocation and Levee Construction, February 1947,

Drawing No. 50-4-2281 Sheet 1 (Station 85+00)]

FS Date: 5/5/2015 8:38:32 AM

LM Start	3.55	Rating **	A/W	Issue No.	25 (cont)
LM End	3.55	Issue Type +	Ma	Location *	



Waterside view- overview

# Photo 2 of 3: UCIP\_FA\_2018\_44947\_22983.jpg



Waterside view- pipe, flap gate and debris.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.55	Rating **	A/W	Issue No.		25 (cont)
LM End	3.55	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS Lat	itud	le/Longitude
Category				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.59068	o°	38.590680°
пеш				-121.73072	o°	-121.730720°
DWR ID	17622					

# Inspector Comment

Comment Code

FS\_ID:44947 DS\_ID:17622 EP\_NO: 10316

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 good/clear on LS & WS, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/28/2013 Debris on waterside flap gate has been removed. (DWR

Sacramento Yard - C. Lund)

09/19/2012 Debris on waterside flap gate. Needs debris removal from

the pipe. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 11 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete pad is located on the WS. (24-inch pipe [HLM 3.57] authorized under Automatic Board Order (ABO) issued as Permit No. 10316, 1974 - Stafford). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 85+00)]

FS Date: 5/5/2015 8:38:32 AM



Waterside view- pipe, flap gate and debris. The pipe sits on concrete saddle.

LM Start	4.12	Rating **	М	Issue No.		4		
LM End	4.60	Issue Type +	En	Location *		LS		
Category	Earthen L	evee		GPS Latitude/Longitude				
Category				Start		End		
Item	Encroachi	ments		38.5967	84°	38.599845 °		
item				-121.7376	62°	-121.744830 °		
DWR ID	DWR_ST00	012_01_s _ 201	2_4					
		Comn	nent Cod	de				
DT : Ditch								
	Inspector Comment							
Ditch is at	Ditch is at the levee toe.							

# Photo 1 of 1 : FA\_2018\_ST0012\_295\_4\_20180904\_00001.jpg



View of the ditch on the landward side of the levee looking downstream. Fall 2015.

\*\* Rating

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiency Ob: Design & System Obsolescence

CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A: Acceptable but Monitor & Maintain E: Enforcement

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.30	Rating **	М	Issue No.		26
LM End	4.30	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Category				Start		End
Item	DWR UCI	IP Field Study		38.59884	0 °	38.598840°
пеш				-121.73960	0 °	-121.739600°
DWR ID	17684					

No Photos

### Inspector Comment

Comment Code

FS ID:29303 DS\_ID:17684 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: 09/19/2012 PG&E may provide further info. (DWR

UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 8-inch gas line of unknown material through both levees. (Pacific Gas and Electric Co. [PG&E]). [Additional Reference(s): USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947,

Drawing No. 50-4-2281 Sheet 1 (Station 46+50)]

FS Date: 5/28/2013 2:36:00 PM

LM Start	5.07	Rating **	М	Issue No.		27		
LM End	5.07	Issue Type +	En	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Category	Category			Start		End		
Item	DWR UC	P Field Study		38.59994	0°	38.599940°		
пеш				-121.75353	0°	-121.753530°		
DWR ID	17667							
	Comment Code							

No Photos

# Inspector Comment

FS\_ID:44951 DS\_ID:17667 EP\_NO: 15811

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: 05/28/2013 No markers or other indication of pipe location. Needs to be marked. (DWR Sacramento Yard - C. Lund) FIELD\_STRUCT\_DESC: Replace existing 4-inch diameter natural gas pipeline with an 8-inch diameter natural gas pipeline under the channel and within both banks of Willow Slough. (Permit No. 15811, unknown

year constructed - Shell Western E&P Inc.) FS Date: 5/5/2015 8:40:19 AM

# **Unit Cover Sheet**

# Fall 2018 Levee Inspection Results

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			Α	
Date of Inspection	4/12/2018 - 4/12/2018		9/5/2018 - 9/5/2018	
DWR Inspector	Zach Jojola		Zach Jojola	
Accompanied By	James McCabe		James McCabe	

### Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

# http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.03	Rating **	С	Issue No.		14			
LM End	0.03	Issue Type +	Ма	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	le/Longitude			
Calegory				Start		End			
Item	Erosion / I	Bank Caving		38.5989	26°	38.598926°			
пеш				-121.753893 °		-121.753893°			
DWR ID DWR_ST0012_02_f _ 2017_14									
		Comn	nent Cod	le					
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.			
		Inspecto	or Comm	ent					
Repaired a	Repaired as of inspection date.								

No Photos

Issue No. Rating \*\* A/W 0.05 LM Start 13 0.10 Issue Type + Location \* LS LM End Earthen Levee GPS Latitude/Longitude Category Start End Encroachments 38.599009° 38.599097° Item -121.753617° -121.752676 ° DWR\_ST0012\_02\_s \_ 2017\_13 Comment Code EQ: Equipment Inspector Comment Beehives on landside slope.

No Photos

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.07	Rating **	М	Issue No.		30		
LM End	0.07	Issue Type +	En	Location *				
Catagony	Category Supplemental				GPS Latitude/Longitude			
Calegory						End		
Item	DWR UCI	38.59910	00°	38.599100 °				
пеш				-121.75326	0°	-121.753260 °		
DWR ID	17703							

Comment Code

Inspector Comment

FS\_ID:45283 DS\_ID:17703 EP\_NO: 15811

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: 05/10/2017 Unable to find permit file to clarify if

crossing was constructed. (DWR UCIP - O. Magana)

05/24/2013 Need to contact owner of pipe to place indicators on levee.

(DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: Replace existing 4-inch diameter natural gas pipeline with an 8-inch diameter natural gas pipeline under the channel and within both banks of Willow Slough. (Permit No. 15811, unknown

year - Shell Western E&P Inc.) FS Date: 5/14/2015 1:35:47 PM

No Photos



An updated view of the ditch near LM 0.29. Fall 2016.

LM Start	0.29	Rating **	М	Issue No.		7			
LM End	0.40	Issue Type +	En	Location *		LS			
Category	Earthen Levee					GPS Latitude/Longitude			
Category				Start		End			
Item	Encroach	ments		38.5989	93°	38.599045°			
item				-121.749130°		-121.747107°			
DWR ID DWR_ST0012_02_s _ 2014_7									
		Comn	nent Cod	de					
DT : Ditch									
		Inspecto	or Comm	nent					
The ditch i	The ditch is located at the levee toe.								
1									

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.29	Rating **	М	Issue No.		7 (cont)	
				14: *		• •	
LM End	0.40	Issue Type +	En	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Odlogory				Start		End	
Item	Encroach	Encroachments			93°	38.599045 °	
пеш				-121.749130°		-121.747107°	
DWR ID DWR_ST0012_02_s _ 2014_7							
		Comn	nent Cod	de			
DT : Ditch							
		Inspecto	or Comm	nent			
The ditch is located at the levee toe.							



View of the ditch on the landward side of the levee looking downstream. Spring 2016.

LM Start	0.83	Rating **	A/W	Issue No.		31	
LM End	0.83	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	DWR UCI	P LMA Respo	onsibility	38.59781	3°	38.597813°	
item				-121.73963	86 °	-121.739636 °	
DWR ID	534						
Comment Code							

# Inspector Comment

FS\_ID:45286 DS\_ID:534 EP\_NO: 10327

Repair Type: No Action Needed

Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

05/24/2013 Flap gate repaired. (DWR Sacramento Yard - C. Lund) 09/20/2012 Flap gate is not properly closing. (DWR UCIP - P. Amatya) FIELD\_STRUCT\_DESC: 24-inch corrugated drainage pipe through the levee, 17.5 feet below the crown. Flap gate is located on the waterside (WS) slope. (24-inch pipe [HLM 0.78] authorized under Automatic Board Order (ABO) issued as Permit No. 10327 - Heidrick). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 47+00)]

FS Date: 5/14/2015 1:36:52 PM



Waterside view- concrete headwall and CM pipe

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	0.83	Rating **	A/W	Issue No.		31 (cont)
LM End	0.83	Issue Type +	Ма	Location *		
Category	Suppleme	GPS Latitude/Longitude				
Calegory	Category					End
Item	DWR UCI	P LMA Respo	nsibility	38.5978	13°	38.597813°
пеш				-121.73963	36°	-121.739636°
DWR ID	534					

# Inspector Comment

Comment Code

FS\_ID:45286 DS\_ID:534 EP\_NO: 10327

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/24/2013 Flap gate repaired. (DWR Sacramento Yard - C. Lund) 09/20/2012 Flap gate is not properly closing. (DWR UCIP - P. Amatya) FIELD\_STRUCT\_DESC: 24-inch corrugated drainage pipe through the levee, 17.5 feet below the crown. Flap gate is located on the waterside (WS) slope. (24-inch pipe [HLM 0.78] authorized under Automatic Board Order (ABO) issued as Permit No. 10327 - Heidrick). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 47+00)]

FS Date: 5/14/2015 1:36:52 PM

LM Start	0.83	Rating **	A/W	Issue No.	31 (cont)
LM End	0.83	Issue Type +	Ma	Location *	



Waterside view- overview

Photo 3 of 3: UCIP\_FA\_2018\_45286\_22461.jpg



Waterside view- CM pipe and flap gate.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	1.21	Rating **	A/W	Issue No.		32		
LM End	1.21	Issue Type +	Ма	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Category				Start		End		
Item	DWR UCIP LMA Responsibility			38.59339	o°	38.593390°		
пеш				-121.73560	o°	-121.735600°		
DWR ID	536							

### Inspector Comment

Comment Code

FS\_ID:13725 DS\_ID:536 EP\_NO: 10331

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Landside- upper corner of headwall was chipped off. (DWR

UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 1.15] authorized under Automatic Board Order (ABO) issued as Permit No. 10331, 1974 - Lavezzo). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 66+98)]

FS Date: 5/24/2013 8:22:08 AM

LM Start	1.21	Rating **	A/W	Issue No.	32 (cont)
LM End	1.21	Issue Type +	Ma	Location *	



Waterside view- flap gate and CM pipe

# Photo 2 of 3: UCIP\_FA\_2018\_13725\_22469.jpg



Landside view- concrete headwall and pipe

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	1.21	Rating **	A/W	Issue No.		32 (cont)	
LM End	1.21	Issue Type +	Ма	Location *			
Catagony	Category Supplemental				GPS Latitude/Longitude		
Category						End	
Item	DWR UCIP LMA Responsibility			38.59339	o°	38.593390	0
пеш				-121.73560	o°	-121.735600	0
DWR ID	536						

### Inspector Comment

Comment Code

FS ID:13725 DS\_ID:536 EP\_NO: 10331

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Landside- upper corner of headwall was chipped off. (DWR UCIP - P. Amatya)

FIELD STRUCT DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 1.15] authorized under Automatic Board Order (ABO) issued as Permit No. 10331, 1974 -Lavezzo). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 66+98)]

FS Date: 5/24/2013 8:22:08 AM

# Photo 3 of 3: UCIP\_FA\_2018\_13725\_22468.jpg



Landside view- concrete headwall corner chipped off

LM Start	1.21	Rating **	A/W	Issue No.		23	
LM End	1.21	Issue Type +	Ма	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Category	Category					End	
Item	Erosion /	Bank Caving		38.59336	88°	38.593368 °	
пеш	item				)5 °	-121.735605 °	
DWR ID	DWR ID DWR_ST0012_02_f _ 2016_23						
Comment Code							

E1: Note and monitor erosion site.

# Inspector Comment

Erosion on waterward side at utility crossing. Doesn't appear to be within prism, but should be monitored.

# Photo 1 of 1: FA\_2018\_ST0012\_296\_23\_20180904\_00026.jpg



View of an erosion site around UCIP pipe FSID 13725 on waterward side of the levee. Fall 2016.

# **Levee Inspection Report By Mile - Fall 2018**

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	1.57	Rating **	М	Issue No.		29			
LM End	1.57	Issue Type +	Ma	Location *		LS			
Category Earthen Levee				GPS Latitude/Longitude					
Calegory				Start		End			
Item	Slope Stability				64°	38.590064°			
пеш				-121.730723°		-121.730723°			
DWR ID DWR_ST0012_02_s _ 2017_29									
	Comment Code								
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.									
Inspector Comment									
Tire damage on landside levee slope.									



View of tire damage on landside levee slope. Spring 2017.

LM Start	1.77	Rating **	С	Issue No.		8			
LM End	1.77	Issue Type +	Ma	Location *	WS				
Category Earthen Levee				GPS Latitude/Longitud					
				Start		End			
Item	Erosion / Bank Caving			38.5899	66°	38.589966°			
пеш	item					-121.727072°			
DWR ID	DWR ID DWR_ST0012_02_s _ 2012_8								
Comment Code									
F1 · Note and monitor erosion site									

Inspector Comment

Repaired as of inspection date..

NIA	Photos	
INO	L HOIOS	

LM Start	2.04	Rating **	С	Issue No.		5			
LM End	2.04	Issue Type +	Ma	Location *		WS			
Category	Category Earthen Levee			GPS La	atituc	de/Longitude			
Calegory	Category				Start				
Item	Erosion / Bank Caving			38.5899	06°	38.589906	c		
item	item				18°	-121.722218	c		
DWR ID	DWR ID DWR_ST0012_02_s _ 2012_5								
Comment Code									
E1 : Note a	and monito	or erosion site							

Inspector Comment

Repaired as of insection date.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.25	Rating **	С	Issue No.		19	
LM End	2.25	Issue Type +	Ma	Location *		WS	
Earthen Levee				GPS La	atitud	le/Longitude	
Category				Start		End	
Item Erosion / Bank Caving				38.5898	45°	38.589845	0
item				-121.7182	92°	-121.718292	0
DWR ID	DWR_ST00	012_02_f _ 201	5_19				
		Comn	nent Cod	de			
E1 : Note a	and monito	or erosion site					
		Inspecto	or Comm	nent			
Respaired as of this inspection.							
1							

No Photos

LM Start	2.73	Rating **	С	Issue No.		20
LM End	2.73	Issue Type +	Ma	Location *		WS
Catagory	evee	GPS La	titud	e/Longitude		
Category				Start		End
Item	Erosion / Bank Caving			38.58970	)7°	38.589707°
пеш				-121.70942	29°	-121.709429°
DWR ID	DWR_ST0	012_02_f _ 201	5_20			
Comment Code						
E1 : Note and monitor erosion site.						

Inspector Comment

No Photos

LM Start	2.82	Rating **	A/W	Issue No.		10
LM End	2.82	Issue Type +	Ма	Location *		WS
Cotogon/ Earthen Levee				GPS La	titud	e/Longitude
Calegory	Category			Start		End
Item	Erosion / Bank Caving			38.58969	91 °	38.589691 °
item				-121.7077	40°	-121.707740 °
DWR ID	DWR_ST0	012_02_f _ 201	4_10			
Comment Code						
E1 : Note and monitor erosion site.						

Inspector Comment

Eorsion on waterside toe road. Recommend monitoring.



Photo 1 of 2: FA\_2018\_ST0012\_296\_10\_20180905\_00032.jpg

Updated view of erosion on the waterside toe road. Fall 2018.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side
CR: Crown

\*\* Rating
A: Acceptable N: Not Inspected/Rated
M: Minimally Acceptable C: Corrected
M: Minimally Acceptable A/W: Acceptable but Monitor & Maintain

\* Issue Type
Ma: Maintenance Deficiency
Ob: Design & System Obsolescence
En: Enforcement

Repaired as of this inspection.

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.82	Rating **	A/W	Issue No.		10 (cont)
LM End	2.82	Issue Type +	Ma	Location *		WS
Earthen Levee				GPS La	atitud	le/Longitude
Category				Start		End
Item	Erosion / Bank Caving				91 °	38.589691 °
пеш				-121.707740 °		-121.707740°
DWR ID	DWR_ST00	012_02_f _ 2014	4_10			
		Comn	nent Cod	de		
E1 : Note a	and monito	r erosion site				
Inspector Comment						
Eorsion on waterside toe road. Recommend monitoring.						



View of the erosion on the toe road looking downstream. Spring 2016.

LM Start	2.97	Rating **	A/W	Issue No.	33		
LM End	2.97	Issue Type +	Ma	Location *			
Category	ental	GPS La	titud	le/Longitude			
Calegory						End	
Item	DWR UCI	P LMA Respo	nsibility	38.5896	80°	38.589680°	
пеш				-121.7050	40 °	-121.705040 °	
DWR ID	538						
	Comment Code						

# Inspector Comment

FS\_ID:45291 DS\_ID:538 EP\_NO: 10328

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 11 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 2.90] authorized under Automatic Board Order (ABO) issued as Permit No. 10328, 1974 -Heidrick). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 158+69)]

FS Date: 5/14/2015 1:40:56 PM



Landside view- concrete headwall and pipe (temporarily closed used wooden planks).

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.97	Rating **	A/W	Issue No.		33 (cont)
LM End	2.97	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.58968	30°	38.589680°
пеш				-121.70504	40 °	-121.705040°
DWR ID	538					

# Inspector Comment

Comment Code

FS\_ID:45291 DS\_ID:538 EP\_NO: 10328

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 11 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 2.90] authorized under Automatic Board Order (ABO) issued as Permit No. 10328, 1974 - Heidrick). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 158+69)]

FS Date: 5/14/2015 1:40:56 PM

LM Start	2.97	Rating **	A/W	Issue No.	33 (cont)
LM End	2.97	Issue Type +	Ma	Location *	

# Photo 2 of 3 : UCIP\_FA\_2018\_45291\_22478.jpg

Landside view- concrete headwall

# Photo 3 of 3: UCIP\_FA\_2018\_45291\_22477.jpg



Landside view- open ditch.

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	2.98	Rating **	С	Issue No.		12	
LM End	2.98	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Slope Sta	bility		38.5896	73 °	38.589673°	
item				-121.7046	90°	-121.704690°	
DWR ID	DWR_ST0	012_02_f _ 2017	7_12				
		Comn	nent Cod	le			
S3 : Repai access wh		slope damag le.	ed by ve	hicle traffic	and	l prevent	
Inspector Comment							
Tire ruts or	Tire ruts on landside slope.						

No Photos

LM Start	3.60	Rating **	М	Issue No.		6
LM End	3.60	Issue Type +	Ма	Location *	LS	
Category	Earthen L		GPS Latitude/Longitude			
Calegory			Start		End	
Item	Animal Control			38.5895	52 °	38.589552°
пеш				-121.6934	08°	-121.693408°
DWR ID	DWR_ST0	012_02_f _ 2017	7_6			

# Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

# Inspector Comment

Burrow hole on landside slope near access ramp.

# Photo 1 of 1: FA\_2018\_ST0012\_296\_6\_20180904\_00003.jpg



View of burrow hole near access ramp on landside. Fall 2017.

# Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.61	Rating **	A/W	Issue No.		34	
LM End	3.61	Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP LMA Respo	onsibility	38.58957	°	38.589570°	
item				-121.69309	o°	-121.693090 °	
DWR ID	541						

# Inspector Comment

Comment Code

FS\_ID:45294 DS\_ID:541 EP\_NO: 10335

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/20/2012 Landside view photos are missing. Daylight pipe is a steel pipe. The pipe through the levee may be a CMP.

(DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 1 of 2. 42-inch corrugated metal drainage pipe through the levee, 12 feet below the crown. Flap gate located on the waterside (WS) end. 42-inch pipe sleeved through a 48-inch corrugated metal pipe (CMP). (two 48-inch pipes [HLM 3.54] authorized under Automatic Board Order (ABO) issued as Permit No. 10335, 1974 - Snyder). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, (Station 192+80)] FS Date: 5/14/2015 1:41:55 PM

LM Start	3.61	Rating **	A/W	Issue No.	34 (cont)
LM End	3.61	Issue Type +	Ma	Location *	



Waterside overview- middle 42-inch pipe.

Photo 2 of 3: UCIP\_FA\_2018\_45294\_22788.jpg



Waterside overview-

# Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

	LM Start	3.61	Rating **	A/W	Issue No.		34 (cont)	
ĺ	LM End	3.61	Issue Type +	Ма	Location *			
	Category	Suppleme	GPS Latitude/Longitude					
					Start		End	
	Item	DWR UCI	P LMA Respo	nsibility	38.58957	'0°	38.589570	0
пеш				-121.69309	90°	-121.693090	٥	
	DWR ID	541						

### Inspector Comment

Comment Code

FS\_ID:45294 DS\_ID:541 EP\_NO: 10335

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/20/2012 Landside view photos are missing. Daylight pipe is a steel pipe. The pipe through the levee may be a CMP.

(DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 1 of 2. 42-inch corrugated metal drainage pipe through the levee, 12 feet below the crown. Flap gate located on the waterside (WS) end. 42-inch pipe sleeved through a 48-inch corrugated metal pipe (CMP). (two 48-inch pipes [HLM 3.54] authorized under Automatic Board Order (ABO) issued as Permit No. 10335, 1974 - Snyder). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, (Station 192+80)] FS Date: 5/14/2015 1:41:55 PM

# Photo 3 of 3: UCIP\_FA\_2018\_45294\_22792.jpg

Waterside view- 42-inch steel pipe and flap gate.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.61	Rating **	A/W	Issue No.		35
LM End	3.61	Issue Type +	Ма	Location *		
Category	Supplemental			GPS La	titud	e/Longitude
Calegory	Category					End
Item	DWR UCI	P LMA Respo	nsibility	38.58956	67°	38.589567°
пеш			-121.6930	70°	-121.693070°	
DWR ID	17729					·

### Inspector Comment

Comment Code

FS\_ID:45295 DS\_ID:17729 EP\_NO: 10335

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 05/05/2017 48-inch pipe authorized under ABO/Permit No. 10335. Reference has been verified and this crossing is referenced correctly. No records were found to support the additional of the 42-inch through the 48-inch pipe. (DWR UCIP - O. Magana) 09/20/2012 Daylight pipe looks like steel pipe. The pipe through the levee may be a CMP. Needs a landside view photos which is missing. This pipe may be a 42-inch pipe mentioned in ABO 10333. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 2 of 2. 42-inch corrugated metal drainage pipe through the levee, 12 feet below the crown. Flap gate located on the waterside (WS) end. 42-inch pipe sleeved through a 48-inch corrugated metal pipe (CMP). (two 48-inch pipes [HLM 3.54] authorized under Automatic Board Order (ABO) issued as Permit No. 10335, 1974 - Snyder). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, (Station 192+88)] FS Date: 5/14/2015 1:42:08 PM

LM Start	3.61	Rating **	A/W	Issue No.	35 (cont)
LM End	3.61	Issue Type +	Ma	Location *	



Waterside overview- far right 42-inch pipe.

### Photo 2 of 3: UCIP\_FA\_2018\_45295\_22793.jpg



Waterside view- 42-inch steel pipe and flap gate (right).

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	3.61	Rating **	A/W	Issue No.		35 (cont)
LM End	3.61	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Lat	itud	e/Longitude
Calegory	Calegory					End
Item	DWR UCI	P LMA Respo	onsibility	38.58956	7 °	38.589567°
пеш				-121.69307	0 °	-121.693070°
DWR ID	17729					

# Comment Code

### Inspector Comment

FS\_ID:45295 DS\_ID:17729 EP\_NO: 10335

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 05/05/2017 48-inch pipe authorized under ABO/Permit No. 10335. Reference has been verified and this crossing is referenced correctly. No records were found to support the additional of the 42-inch through the 48-inch pipe. (DWR UCIP - O. Magana) 09/20/2012 Daylight pipe looks like steel pipe. The pipe through the levee may be a CMP. Needs a landside view photos which is missing. This pipe may be a 42-inch pipe mentioned in ABO 10333. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 2 of 2. 42-inch corrugated metal drainage pipe through the levee, 12 feet below the crown. Flap gate located on the waterside (WS) end. 42-inch pipe sleeved through a 48-inch corrugated metal pipe (CMP). (two 48-inch pipes [HLM 3.54] authorized under Automatic Board Order (ABO) issued as Permit No. 10335, 1974 - Snyder). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, (Station 192+88)] FS Date: 5/14/2015 1:42:08 PM



Waterside overview- outlet structure.

LM Start	3.95	Rating **	A/W	Issue No.		18			
LM End	3.95	Issue Type +	Ма	Location *	WS				
Category Earthen Levee				GPS Latitude/Longitude					
Calegory	Category			Start		End			
Item	Erosion /	Bank Caving		38.58950	)8°	38.589508°			
пеш				-121.68685	50°	-121.686850 °			
DWR ID	DWR ID DWR_ST0012_02_s _ 2016_18								
	Comment Code								

#### E1: Note and monitor erosion site.

#### Inspector Comment

# Photo 1 of 1 : FA\_2018\_ST0012\_296\_18\_20180904\_00022.jpg



View of the erosion on the waterward side looking downstream. Spring 2016.

\* Location

LS: Land Side N/A: Not Applicable

WS: Water Side

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type Ma : Mainter

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.09	Rating **	A/W	Issue No.		24				
LM End	4.09	Issue Type +	Ma	Location *		WS				
Earthen Levee				GPS Latitude/Longitude						
Category				Start		End				
Item	Erosion / Bank Caving				38°	38.589538 °				
item				-121.684177°		-121.684177°				
DWR ID DWR_ST0012_02_s _ 2018_24										
		Comn	nent Cod	de						
E1 : Note a	and monito	r erosion site								
		Inspecto	or Comm	nent						
Runoff erosion on waterside toe road. Recommend monitoring.										

Photo 1 of 1 : FA\_2018\_ST0012\_296\_24\_20180904\_00027.jpg

View of erosion on the waterside toe road. Spring 2018.

LM Start	4.29	Rating **	A/W	Issue No.	11			
LM End	4.29	Issue Type +	Ма	Location *	WS			
Category Earthen Levee			GPS Latitude/Longitude					
Calegory						End		
Item	Erosion /	Bank Caving		38.5895	50°	38.589550	0	
item				-121.6806	32°	-121.680632	0	
DWR ID DWR_ST0012_02_f _ 2014_11								
Comment Code								

# E1 : Note and monitor erosion site.

#### Inspector Comment

Erosion is near waterside toe on waterside berm at storm drain. Recommend monitoring.

LM Start	4.29	Rating **	A/W	Issue No.	11 (cont)
LM End	4.29	Issue Type +	Ma	Location *	WS

#### Photo 1 of 3: FA\_2018\_ST0012\_296\_11\_20180904\_00012.jpg



An updated view of the erosion site near the WS levee slope. Fall 2016.

### Photo 2 of 3: FA\_2018\_ST0012\_296\_11\_20180904\_00013.jpg



Perspective view of the site. Fall 2016.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.29	Rating **	A/W	Issue No.	11 (cont)		
LM End	4.29	Issue Type +	Ma	Location *	WS		
Catagony	Earthen L	evee	GPS La	atitud	e/Longitude		
Category				Start		End	
Item	Erosion /	Bank Caving		38.5895	50°	38.589550°	
пеш	item				32°	-121.680632 °	
DWR ID	DWR_ST0	012_02_f _ 2014	4_11			·	
		Comn	nent Cod	de			
E1: Note a	and monito	r erosion site					
	Inspector Comment						
Erosion is	Erosion is near waterside toe on waterside berm at storm drain.						

View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

	1	4 50.276		***
		7		
海州法			8	10/15/2015

Photo 3 of 3: FA\_2018\_ST0012\_296\_11\_20180904\_00014.jpg

LM Start	4.29	Rating **	A/W	Issue No.	36			
LM End	4.29	Issue Type +	Ма	Location *				
Category	ental	GPS La	atitud	le/Longitude				
Calegory				Start		End		
Item	DWR UCI	P LMA Respo	nsibility	38.5895	30°	38.589530°		
item				-121.6805	60°	-121.680560 °		
DWR ID 545								
Comment Code								

#### Inspector Comment

FS\_ID:45298 DS\_ID:545 EP\_NO: 10334

Repair Type: No Action Needed

Crossing Status: Found

Recommend monitoring.

UCIP Comments: 04/12/2017 WS - good/clear, LS - good/clear needs to be cut and sprayed, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

05/24/2013 Rodent activities on headwall is far from the levee. Inlet is across city of davis drainage ditch. Inlet was cleaned last fall. see picture. (DWR Sacramento Yard - C. Lund)

09/20/2012 May need video inspection as seen rodent activities on headwall. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 4.21] authorized under Automatic Board Order (ABO) issued as Permit No. 10334 - Rhinehart) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 228+46)]

FS Date: 5/14/2015 1:43:00 PM

Photo 1 of 3: UCIP\_FA\_2018\_45298\_22805.jpg



Waterside overview- pipe and flap gate with dense vegetation.

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.29	Rating **	A/W	Issue No.		36 (cont)
LM End	4.29	Issue Type +	Ма	Location *		
Category	Suppleme	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.58953	30°	38.589530°
пеш			-121.68056	60°	-121.680560°	
DWR ID	545					

#### Inspector Comment

Comment Code

FS\_ID:45298 DS\_ID:545 EP\_NO: 10334

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - good/clear, LS - good/clear needs to be cut and sprayed, inspected by JK, RF. (DWR Sacramento Yard -

05/24/2013 Rodent activities on headwall is far from the levee. Inlet is across city of davis drainage ditch. Inlet was cleaned last fall. see

picture. (DWR Sacramento Yard - C. Lund) 09/20/2012 May need video inspection as seen rodent activities on

headwall. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 13.5 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 4.21] authorized under Automatic Board Order (ABO) issued as Permit No. 10334 - Rhinehart) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 2 (Station 228+46)]

FS Date: 5/14/2015 1:43:00 PM

LM Start	4.29	Rating **	A/W	Issue No.	36 (cont)
LM End	4.29	Issue Type +	Ma	Location *	



Landside overview



Enter photo 5 description or comment here.

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.59	I.59 Rating ** M				37
LM End	4.59	Issue Type +	Ma	Location *		
Category	Suppleme		GPS Latitude/Longitude			
Calegory	Category					End
Item	DWR UCI	DWR UCIP LMA Responsibility			75 °	38.589575 °
пеш			-121.6749	50°	-121.674950 °	
DWR ID	546					

### Inspector Comment

Comment Code

FS\_ID:45285 DS\_ID:546 EP\_NO: 10319

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/24/2013 Material removed from inlet last fall. Outlet cleared. (DWR Sacramento Yard - C. Lund)

09/20/2012 Soil and debris on inlet mouth. (DWR UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. Flap gate is located on the waterside (WS) end. (18-inch pipe [HLM 4.52] authorized under Automatic Board Order (ABO) issued as Permit No. 10319, 1974 - Bell) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 244+47)]

FS Date: 5/14/2015 1:36:11 PM

LM Start	4.59	Rating **	М	Issue No.	37 (cont)
LM End	4.59	Issue Type +	Ma	Location *	



Waterside view- pipe and flap gate.

#### Photo 2 of 3: UCIP\_FA\_2018\_45285\_22811.jpg



Landside view- pipe and headwall.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	4.59	Rating **	М	Issue No.		37 (cont)
LM End	4.59	Issue Type +	Ma	Location *		
Category	Suppleme	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	38.58957	5°	38.589575 °
пеш				-121.67495	o°	-121.674950 °
DWR ID	546					·

#### Inspector Comment

Comment Code

FS ID:45285 DS\_ID:546 EP\_NO: 10319

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK,

RF. (DWR Sacramento Yard - C. Lund)

05/24/2013 Material removed from inlet last fall. Outlet cleared. (DWR

Sacramento Yard - C. Lund)

09/20/2012 Soil and debris on inlet mouth. (DWR UCIP - P. Amatya) FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. Flap gate is located on the waterside (WS) end. (18-inch pipe [HLM 4.52] authorized under Automatic Board Order (ABO) issued as Permit No. 10319, 1974 - Bell) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 244+47)1

FS Date: 5/14/2015 1:36:11 PM

# Photo 3 of 3: UCIP\_FA\_2018\_45285\_22810.jpg



Landside view- soil and debris on mouth of the inlet pipe.

LM Start	5.05	Rating **	A/W	Issue No.		15	
LM End	5.05	Issue Type +	Ma	Location *	ocation * V		
Category	Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End	
Item	Erosion /	Bank Caving		38.58957	o°	38.589570°	
пеш				-121.66658	8 °	-121.666588°	
DWR ID	DWR_ST0012_02_s _ 2015_15						

#### E1: Note and monitor erosion site

#### Inspector Comment

Comment Code

Erosion near levee toe on waterside berm at storm drain. Recommend monitoring.

#### Photo 1 of 3: FA\_2018\_ST0012\_296\_15\_20180904\_00018.jpg



An updated view of the erosion site near the levee slope. Fall 2016.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.05	Rating **	A/W	Issue No.		15 (cont)	
LM End	5.05	Issue Type +	Ма	Location *		WS	
Category Earthen Levee				GPS La	titud	e/Longitude	
Calegory				Start		End	
Item	Erosion / I	Erosion / Bank Caving			70°	38.589570°	
пеш			-121.6665	88°	-121.666588°		
DWR ID DWR_ST0012_02_s _ 2015_15							
		Comn	nent Cod	de			
E1: Note a	and monito	r erosion site					
		Inspecto	or Comm	nent			
Erosion near levee toe on waterside berm at storm drain. Recommend monitoring.							

LM Start	5.05	Rating **	A/W	Issue No.	15 (cont)
LM End	5.05	Issue Type +	Ma	Location *	WS



View of the erosion on the edge of the channel on the waterward side of the levee. Spring 2015.

Photo 3 of 3: FA\_2018\_ST0012\_296\_15\_20180904\_00020.jpg



View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.05	Rating **	A/W	Issue No.		38	
LM End	5.05	Issue Type +	Ма	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory			Start		End		
Item	DWR UCI	P LMA Respo	nsibility	38.58956	0°	38.589560 °	
пеш			-121.66654	o O	-121.666540 °		
DWR ID	548						

Inspector Comment

Comment Code

FS\_ID:45301 DS\_ID:548 EP\_NO: 10321

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - good/clear, inspected by JK, RF.

(DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch drainage pipe through the levee, 17 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 4.97] authorized under Automatic Board Order (ABO) issued as Permit No. 10321, 1974 - Campbell) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 268+57)]

FS Date: 5/14/2015 1:44:17 PM

LM Start	5.05	Rating **	A/W	Issue No.	38 (cont)
LM End	5.05	Issue Type +	Ma	Location *	



Landside view- overview





Waterside view- overview

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.05	Rating **	A/W	Issue No.		38 (cont)
LM End	5.05	Issue Type +	Ма	Location *		
Category	Supplemental				itud	e/Longitude
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	38.58956	0°	38.589560 °
пеш			-121.66654	0°	-121.666540°	
DWR ID	548					

#### Inspector Comment

Comment Code

FS\_ID:45301 DS\_ID:548 EP\_NO: 10321

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - good/clear, inspected by JK, RF.

(DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch drainage pipe through the levee, 17 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 4.97] authorized under Automatic Board Order (ABO) issued as Permit No. 10321, 1974 - Campbell) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 268+57)]

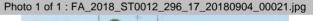
FS Date: 5/14/2015 1:44:17 PM



Waterside view- pipe and flap gate. Water was running in the pipe during the survey.

LM Start	5.09	Rating **	A/W	Issue No.		17			
LM End	5.09	Issue Type +	Ma	Location *		WS			
Category	evee	GPS Latitude/Longitude							
Category	Category					End			
Item	Erosion / I	38.5895	65°	38.589565 °					
item				-121.6657	31 °	-121.665731 °			
DWR ID	DWR ID DWR_ST0012_02_f _ 2016_17								
Comment Code									
E1: Note a	E1 : Note and monitor erosion site.								

Inspector Comment





View of a site that may become a larger erosion site in the future. Waterward side of the levee looking downstream. Fall 2016.

Location Ma : Maintenance Deficiency LS: Land Side N/A: Not Applicable Acceptable N: Not Inspected/Rated WS: Water Side Minimally Acceptable C : Corrected Ob : Design & System Obsolescence U : Unacceptable A/W : Acceptable but Monitor & Maintain En: Enforcement

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.40	Rating **	A/W	Issue No.		39	
LM End	5.40	Issue Type +	Ма	Location *			
Category	Supplemental Supplemental				GPS Latitude/Longitude		
Calegory						End	
Item	DWR UCI	P LMA Respo	nsibility	38.58954	10°	38.589540 °	
пеш			-121.66007	'0°	-121.660070 °		
DWR ID	549						

#### Inspector Comment

Comment Code

FS\_ID:45302 DS\_ID:549 EP\_NO: 10322

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 17.5 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete headwall with wing walls is located on WS. (24-inch pipe [HLM 5.32] authorized under Automatic Board Order (ABO) issued as Permit No. 10322, 1974 - Chew). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 287+19)]

FS Date: 5/14/2015 1:44:30 PM

LM Start	5.40	Rating **	A/W	Issue No.	39 (cont)
LM End	5.40	Issue Type +	Ма	Location *	



Landside view-overview



Waterside view-pipe and flap gate

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.40	Rating **	A/W	Issue No.		39 (cont)
LM End	5.40	Issue Type +	Ма	Location *		
Category				GPS Lat	itud	e/Longitude
Calegory				Start		End
Item	DWR UCI	IP LMA Respo	nsibility	38.58954	o°	38.589540 °
пеш				-121.66007	o°	-121.660070 °
DWR ID	549					·

### Inspector Comment

Comment Code

FS\_ID:45302 DS\_ID:549 EP\_NO: 10322

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 17.5 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete headwall with wing walls is located on WS. (24-inch pipe [HLM 5.32] authorized under Automatic Board Order (ABO) issued as Permit No. 10322, 1974 - Chew). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 287+19)]

FS Date: 5/14/2015 1:44:30 PM



Waterside view- overview

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.57	Rating **	A/W	Issue No.		40
LM End	5.57	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.58952	o°	38.589520°
пеш				-121.65686	o°	-121.656860°
DWR ID	551					

# Inspector Comment

Comment Code

FS\_ID:45305 DS\_ID:551 EP\_NO: 10325

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - submerged in water, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Slide gate on landside of the levee over the field. (DWR

UCIP - P. Amatya)

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 5.50] authorized under Automatic Board Order (ABO) issued as Permit No. 10325, 1974 - Ferris). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 296+34)]

FS Date: 5/14/2015 1:45:21 PM

LM Start	5.57	Rating **	A/W	Issue No.	40 (cont)
LM End	5.57	Issue Type +	Ma	Location *	

### Photo 1 of 3: UCIP\_FA\_2018\_45305\_22861.jpg



Landside view- inlet structure.

### Photo 2 of 3: UCIP\_FA\_2018\_45305\_22860.jpg



Landside view- concrete headwall and slide gate.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.57	Rating **	A/W	Issue No.		40 (cont)	
LM End	5.57	Issue Type +	Ма	Location *			
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UCI	P LMA Respo	nsibility	38.58952	o°	38.589520	0
пеш				-121.65686	o°	-121.656860 °	0
DWR ID	551						

### Inspector Comment

Comment Code

FS\_ID:45305 DS\_ID:551 EP\_NO: 10325

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - submerged in water, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Slide gate on landside of the levee over the field. (DWR

UCIP - P. Amatya)

FIELD STRUCT DESC: 24-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 5.50] authorized under Automatic Board Order (ABO) issued as Permit No. 10325, 1974 -Ferris). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 296+34)]

FS Date: 5/14/2015 1:45:21 PM





Waterside view- overview.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.59	Rating **	A/W	Issue No.		41
LM End	5.59	Issue Type +	Ma	Location *		
Category	Supplemental				atitud	e/Longitude
Calegory				Start		End
Item	DWR UCI	P LMA Respo	onsibility	38.5895	20°	38.589520°
пеш	item				50°	-121.656550 °
DWR ID	552					

# Inspector Comment

Comment Code

FS\_ID:45306 DS\_ID:552 EP\_NO: 10338

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)
09/20/2012 Open inlet over the field. (DWR UCIP - P. Amatya)
FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe
through the levee, 19 feet below the crown. Flap gate is located on the
waterside (WS) end. (36-inch pipe [HLM 5.51] authorized under
Automatic Board Order (ABO) issued as Permit No. 10325, 1974 Ferris) [Additional Reference(s): DWR Levee Log, 1990. USACE
Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation
and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet
4 (Station 297+26)]

FS Date: 5/14/2015 1:45:32 PM

LM Start	5.59	Rating **	A/W	Issue No.	41 (cont)
LM End	5.59	Issue Type +	Ма	Location *	



Waterside view- overview.

Photo 2 of 3: UCIP\_FA\_2018\_45306\_22872.jpg



Waterside view- pipe and flap gate.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	5.59	Rating **	A/W	Issue No.		41 (cont)
LM End	5.59	Issue Type +	Ма	Location *		
Category	ental	GPS Lat	itud	e/Longitude		
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	38.58952	o°	38.589520°
пеш				-121.65655	o°	-121.656550 °
DWR ID	552					·

### Inspector Comment

Comment Code

FS\_ID:45306 DS\_ID:552 EP\_NO: 10338

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Open inlet over the field. (DWR UCIP - P. Amatya) FIELD\_STRUCT\_DESC: 36-inch corrugated metal drainage pipe through the levee, 19 feet below the crown. Flap gate is located on the waterside (WS) end. (36-inch pipe [HLM 5.51] authorized under Automatic Board Order (ABO) issued as Permit No. 10325, 1974 Ferris) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 297+26)]

FS Date: 5/14/2015 1:45:32 PM

# Photo 3 of 3: UCIP\_FA\_2018\_45306\_22876.jpg



Waterside view- pipe and flap gate.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	6.07	Rating **	A/W	Issue No.		42	
LM End	6.07	Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UCIP LMA Responsibility			38.58904	°	38.589040	0
пеш				-121.64787	°	-121.647870	٥
DWR ID	553						

#### Inspector Comment

Comment Code

FS\_ID:45307 DS\_ID:553 EP\_NO: 10325

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Outlet structure under water in waterside of the levee. No

access to the inlet structure. (DWR UCIP - P. Amatya)

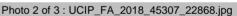
FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 5.98] authorized under Automatic Board Order (ABO) issued as Permit No. 10325, 1974 - Ferris) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 328+51)]

FS Date: 5/14/2015 1:45:44 PM

LM Start	6.07	Rating **	A/W	Issue No.	42 (cont)
LM End	6.07	Issue Type +	Ma	Location *	



Waterside view- overview





Waterside view- outlet structure under the water.

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	6.07	Rating **	A/W	Issue No.		42 (cont)	
LM End	6.07	Issue Type +	Ma	Location *			
Category			GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UCIP LMA Responsibility			38.5890	40°	38.589040°	
lem			-121.6478	70°	-121.647870°		
DWR ID 553							

### Inspector Comment

Comment Code

FS\_ID:45307 DS\_ID:553 EP\_NO: 10325

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS - submerged in water, inspected by

JK, RF. (DWR Sacramento Yard - C. Lund)

09/20/2012 Outlet structure under water in waterside of the levee. No

access to the inlet structure. (DWR UCIP - P. Amatya)

FIELD STRUCT DESC: 24-inch corrugated metal drainage pipe through the levee, 18 feet below the crown. Flap gate is located on the waterside (WS) end. (24-inch pipe [HLM 5.98] authorized under Automatic Board Order (ABO) issued as Permit No. 10325, 1974 -Ferris) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 328+51)]

FS Date: 5/14/2015 1:45:44 PM





Landsideside view- overview

### Levee Inspection Report By Mile - Fall 2018

# Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	7.01	Rating **	A/W	Issue No.		43
LM End	7.01	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory	Category			Start		End
Item	DWR UCIP LMA Responsibility			38.57575	0°	38.575750 °
пеш				-121.64642	20°	-121.646420 °
DWR ID	555					·

### Inspector Comment

Comment Code

FS\_ID:45309 DS\_ID:555 EP\_NO: 10338

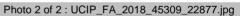
Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 04/12/2017 WS & LS - submerged in water, inspected by JK, RF. (DWR Sacramento Yard - C. Lund)
FIELD\_STRUCT\_DESC: 42-inch corrugated metal drainage pipe through the levee, 23.5 feet below the crown. Flap gate is located on the waterside (WS) end. Concrete headwall with wing walls is located on the landside (LS). (42-inch pipe [HLM 6.92] authorized under Automatic Board Order (ABO) issued as Permit No. 10338, 1974 - Woodland Farms, Ltd) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 5 (Station 374+00)]
FS Date: 5/14/2015 1:46:34 PM

LM Start	7.01	Rating **	A/W	Issue No.	43 (cont)
LM End	7.01	Issue Type +	Ma	Location *	



Landside view- Wing wall and pipe





Waterside view- pipe and flap gate

### Levee Inspection Report By Mile - Fall 2018

# **Sacramento Maintenance Yard Willow Slough Bypass**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	09/05/2018 09/05/2018	Zach Jojola

LM Start	7.02	Rating **	С	Issue No.		25	
LM End	7.02	Issue Type +	Ma	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory		Start		End			
Slope Stability			38.5756	07°	38.575607°		
пеш		-121.646203 °		-121.646203 °			
DWR ID DWR_ST0012_02_s _ 2018_25							
		Comn	nent Coc	de			
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.							
	Inspector Comment						
Rutts on waterside slope.							

No Photos

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side

A: Acceptable
M: Minimally Acceptable
U: Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement